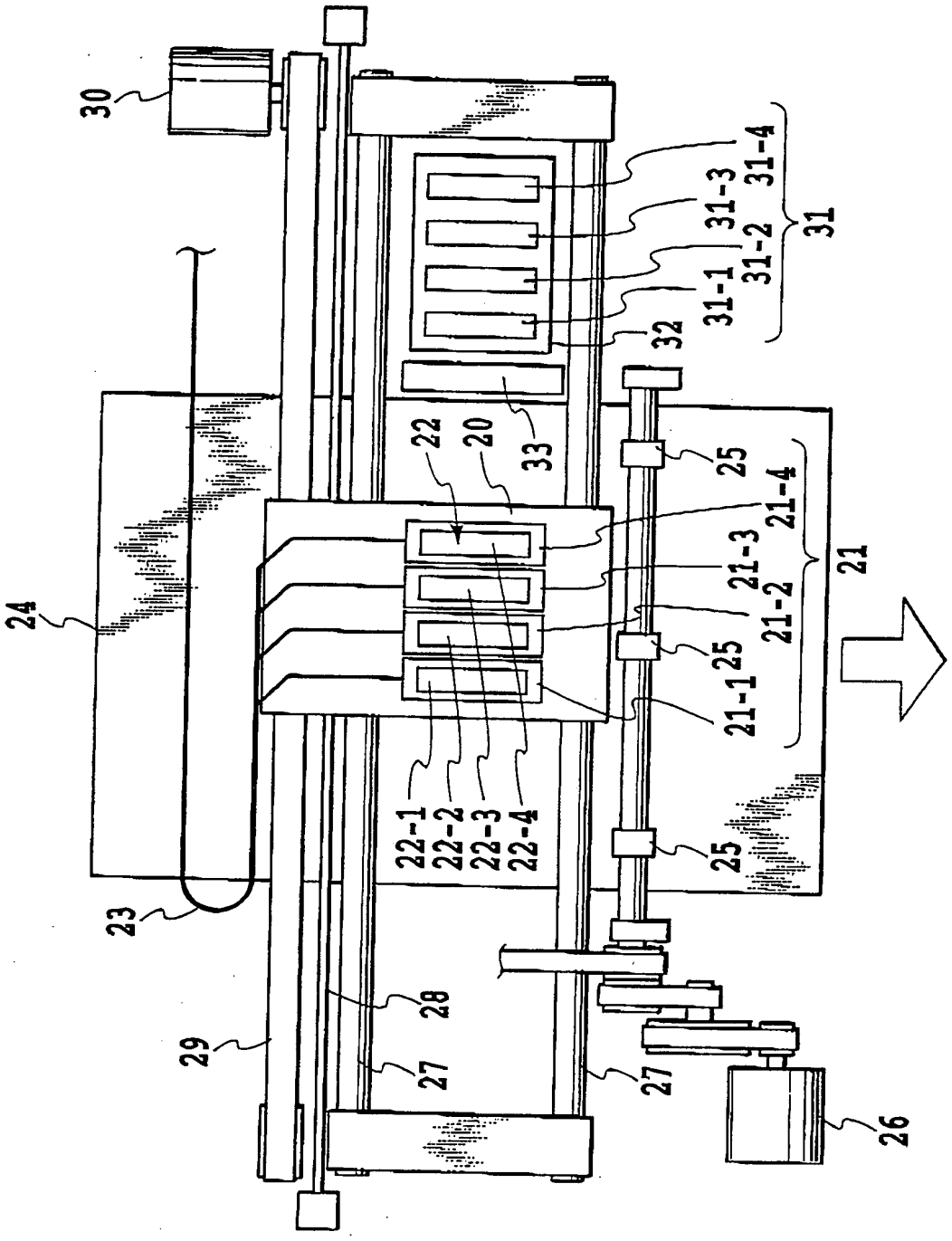
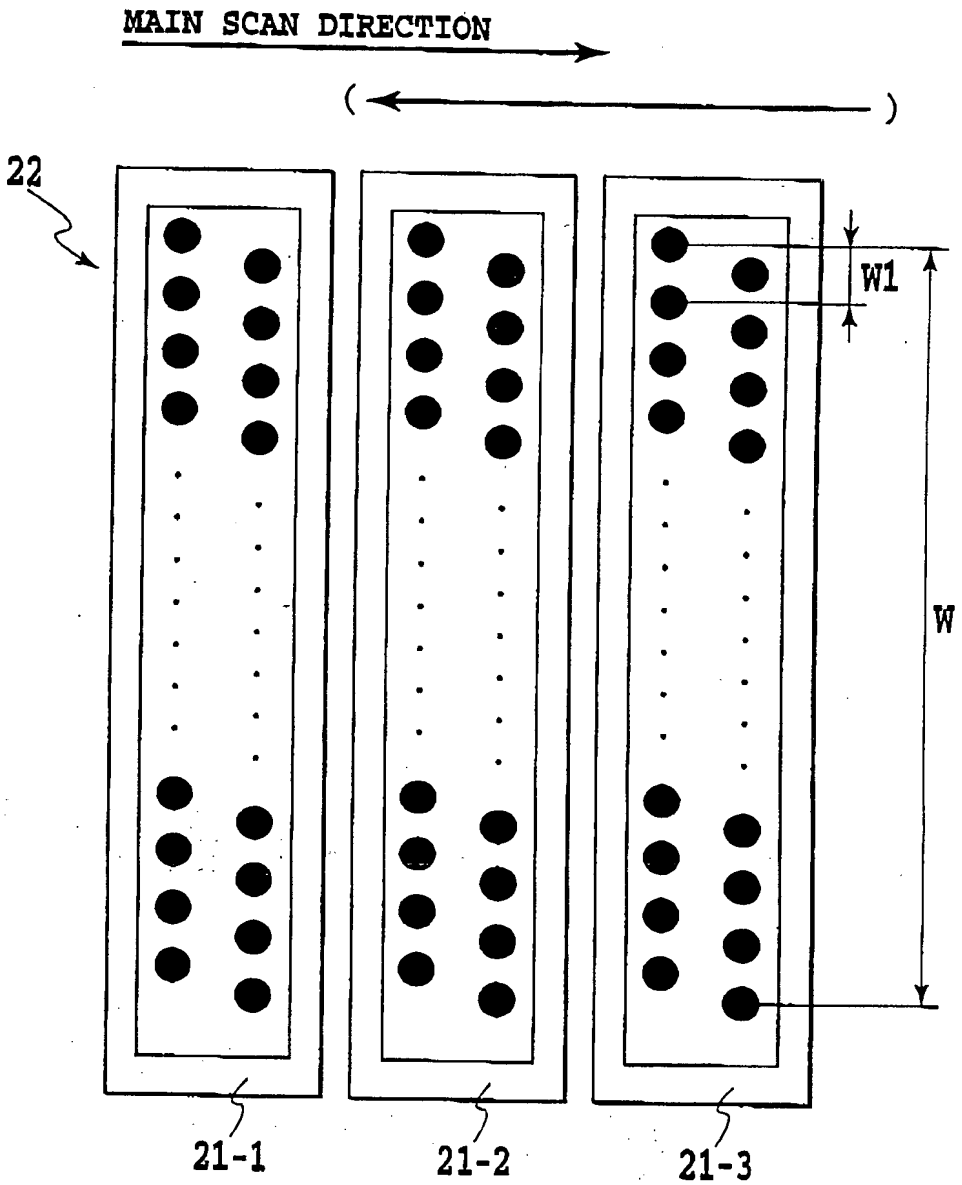

30
31-4
31-3
31-2
31-1
31
32
33
22
20
25
21-4
21-3
21-2
21-1
21
24
22-1
22-2
22-3
22-4
23
28
29
27
26

FIG.1



W··· WIDTH OF NOZZLE COLUMN
W1··· INTERVAL BETWEEN ADJOINING NOZZLES IN SUBSCAN DIRECTION

FIG.2

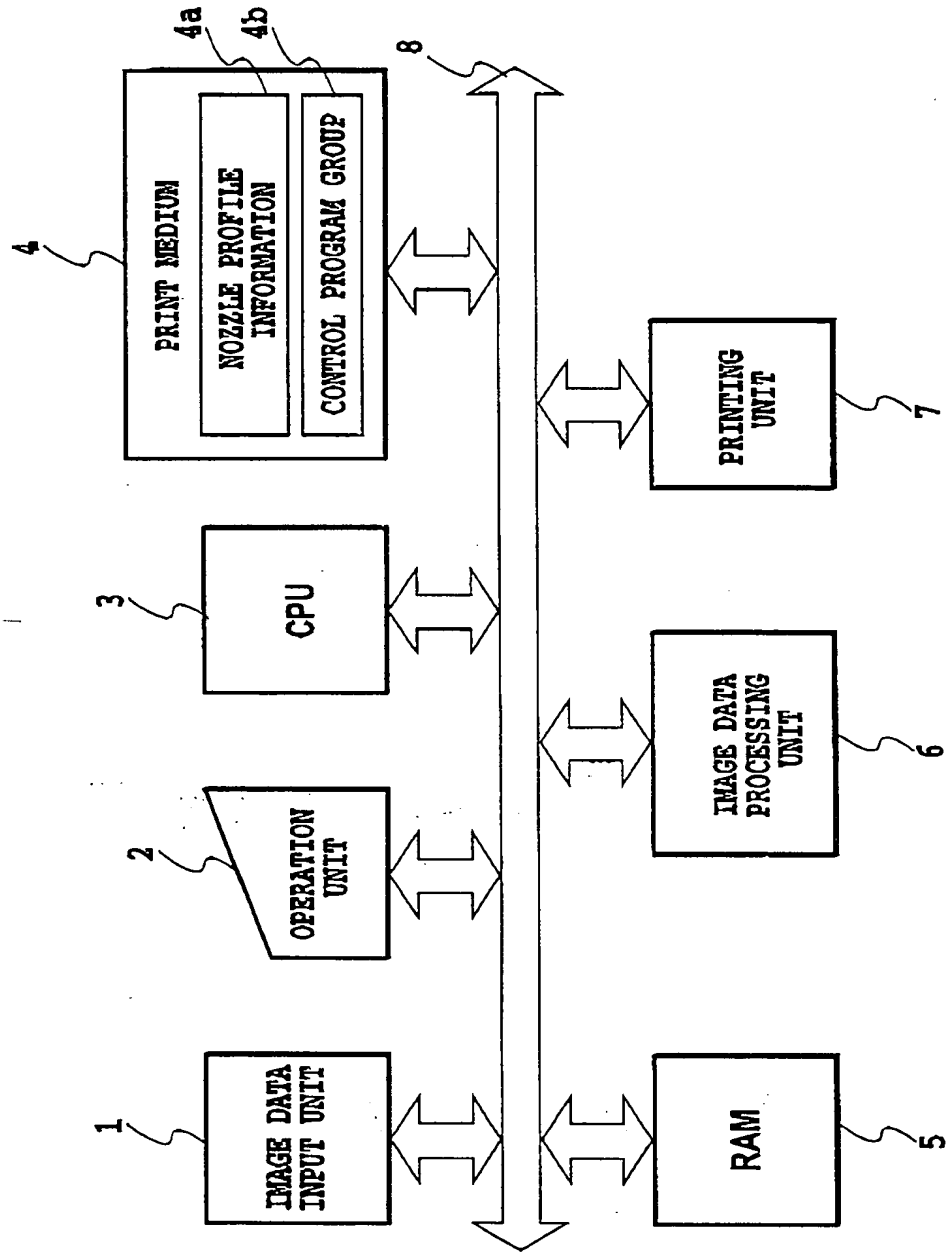

4a
4b
8
4
PRINT MEDIUM
NOZZLE PROFILE INFORMATION
CONTROL PROGRAM GROUP
PRINTING UNIT
7
3
CPU
IMAGE DATA PROCESSING UNIT
6
2
OPERATION UNIT
1
IMAGE DATA INPUT UNIT
RAM
5

FIG.3

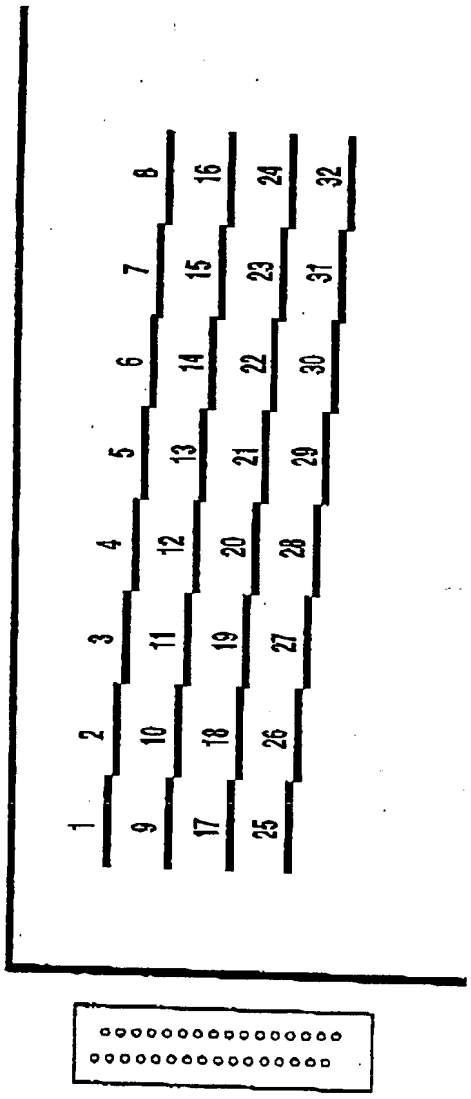

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

FIG.4A

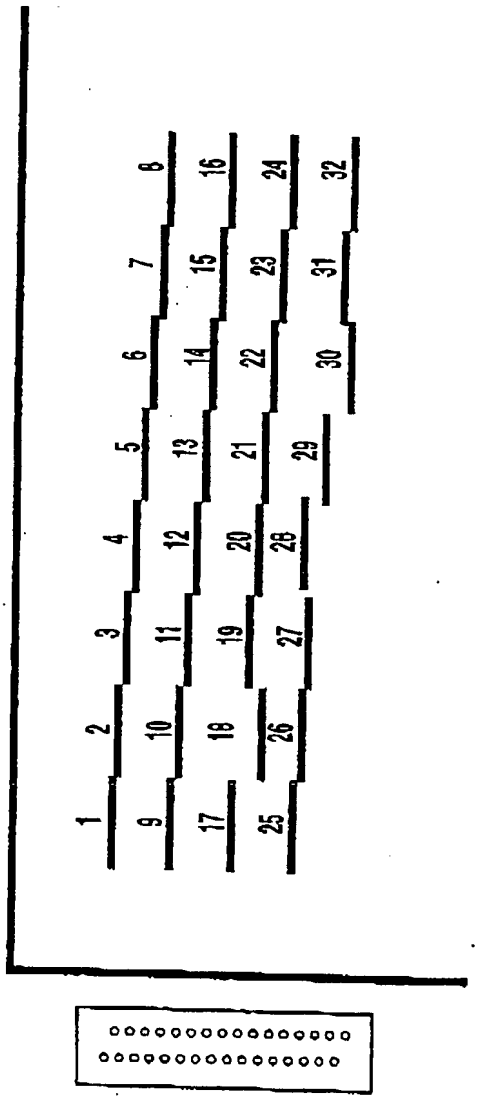

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

FIG.4B

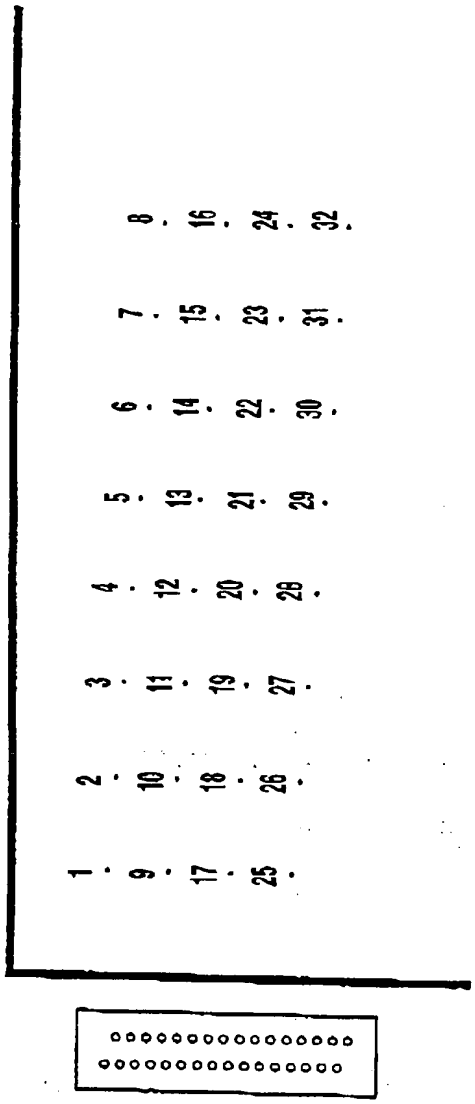

1 9 17 25
2 10 18 26
3 11 19 27
4 12 20 28
5 13 21 29
6 14 22 30
7 15 23 31
8 16 24 32

FIG.5A

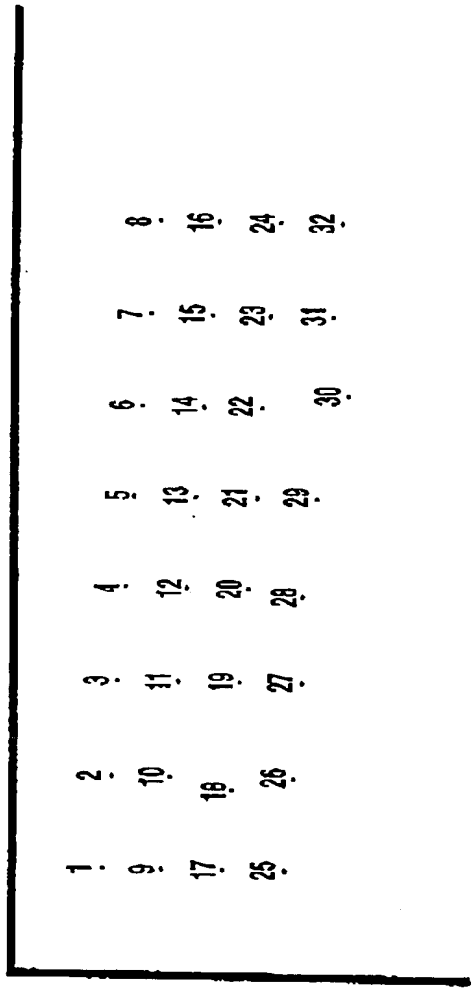
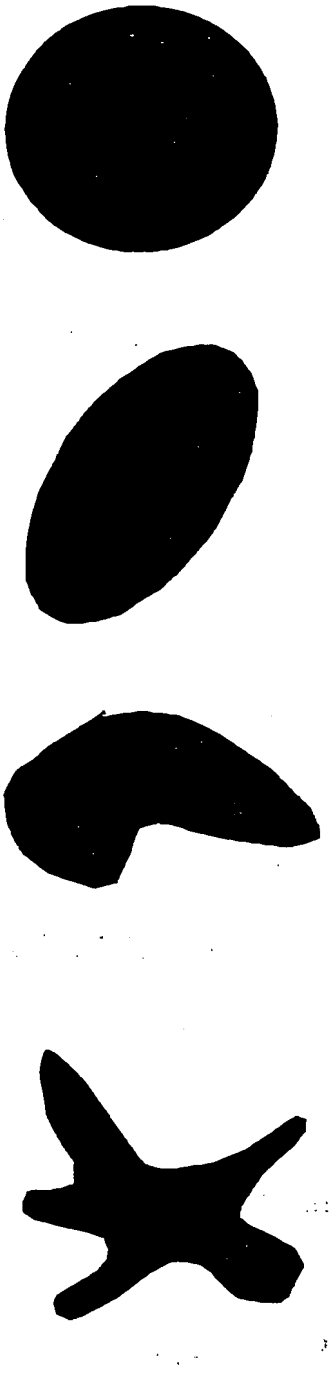

1 9 17 25
2 10 18 26
3 11 19 27
4 12 20 28
5 13 21 29
6 14 22 30
7 15 23 31
8 16 24 32

FIG.5B

FIG.6



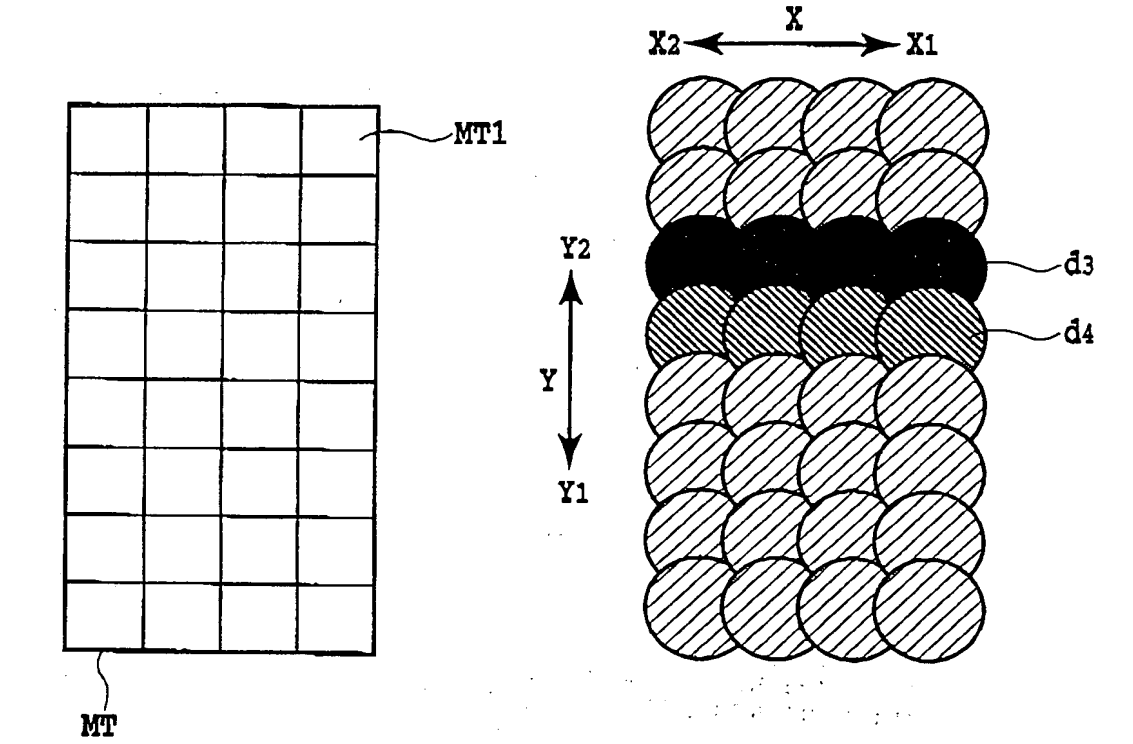


FIG.7A

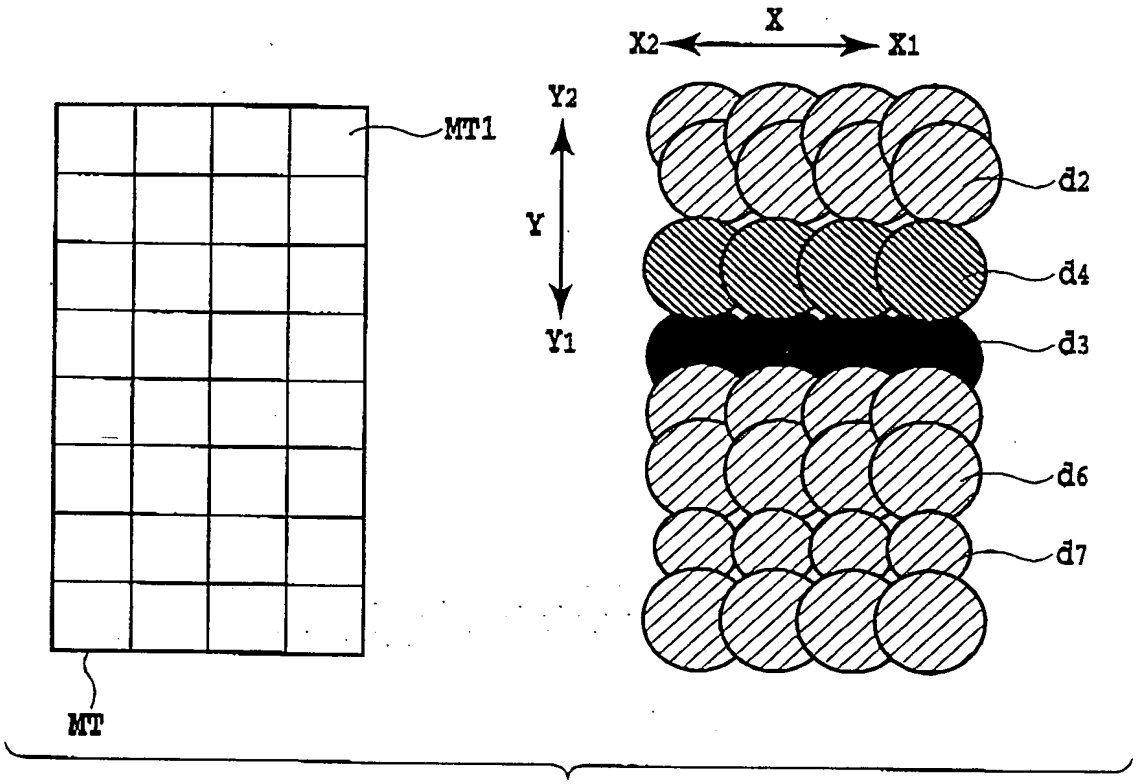


FIG.7B

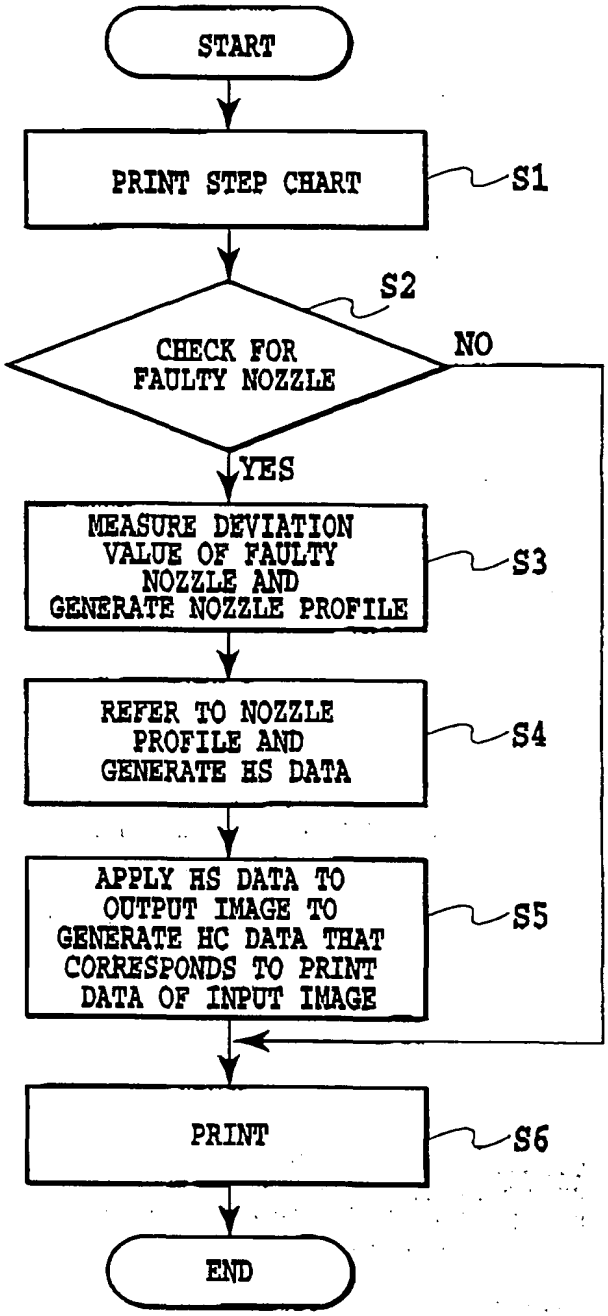

START
PRINT STEP CHART
S1
S2
CHECK FOR FAULTY NOZZLE
NO
YES
MEASURE DEVIATION VALUE OF FAULTY NOZZLE AND GENERATE NOZZLE PROFILE
S3
REFER TO NOZZLE PROFILE AND GENERATE HS DATA
S4
APPLY HS DATA TO OUTPUT IMAGE TO GENERATE HC DATA THAT CORRESPONDS TO PRINT DATA OF INPUT IMAGE
S5
PRINT
S6
END

FIG.8

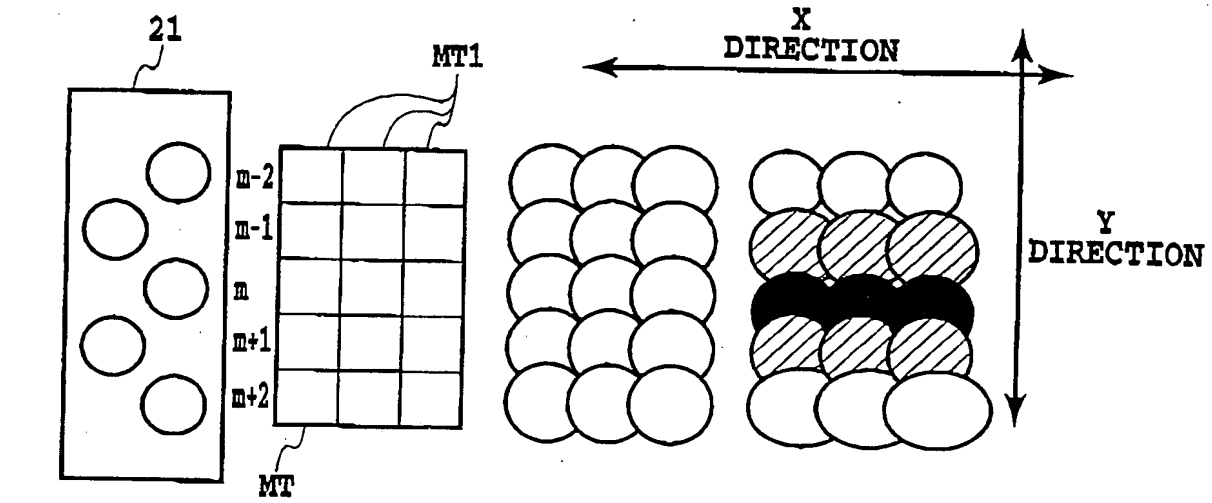

21
MT1
X
DIRECTION
Y
DIRECTION
m-2
m-1
m
m+1
m+2
MT

FIG.9A

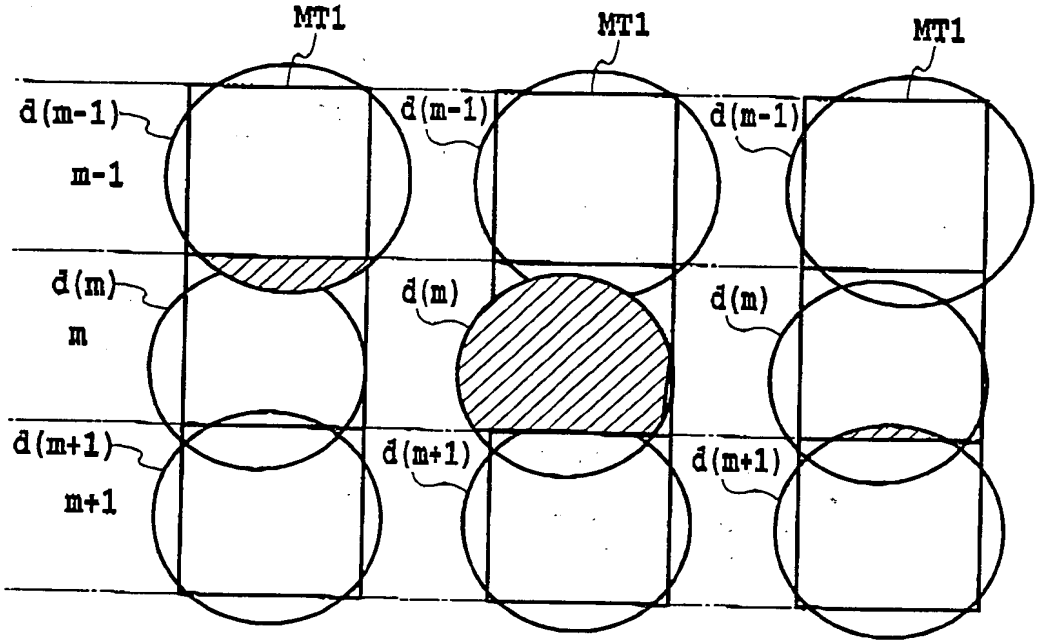

MT1
MT1
MT1
d(m-1)
m-1
d(m-1)
d(m-1)
d(m)
m
d(m)
d(m)
d(m+1)
m+1
d(m+1)
d(m+1)

FIG.9B

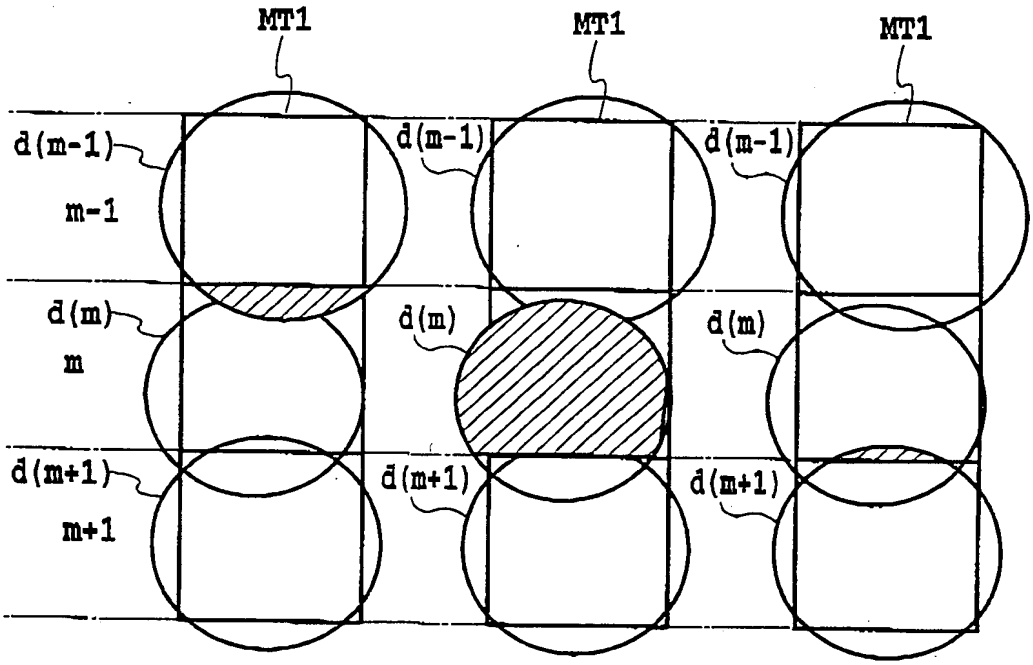


FIG.10

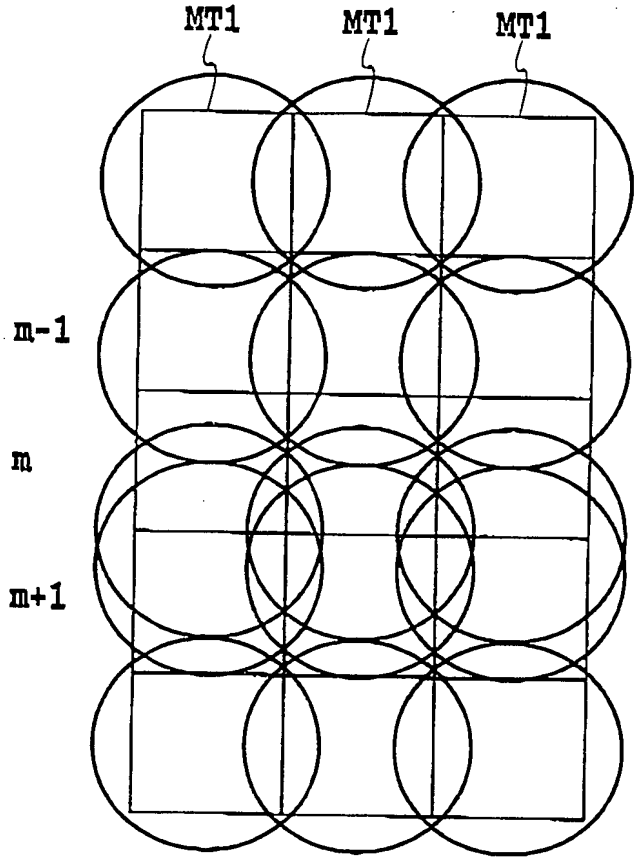


FIG.11A

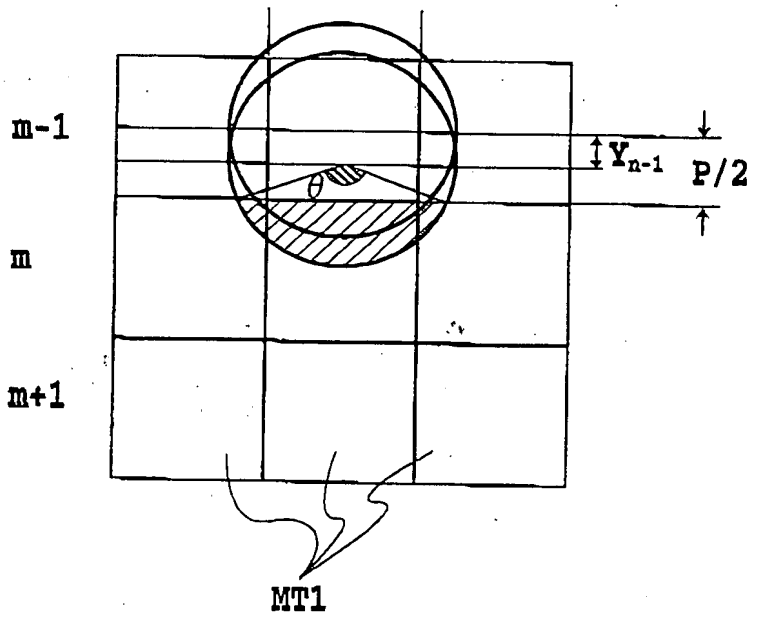


FIG.11B

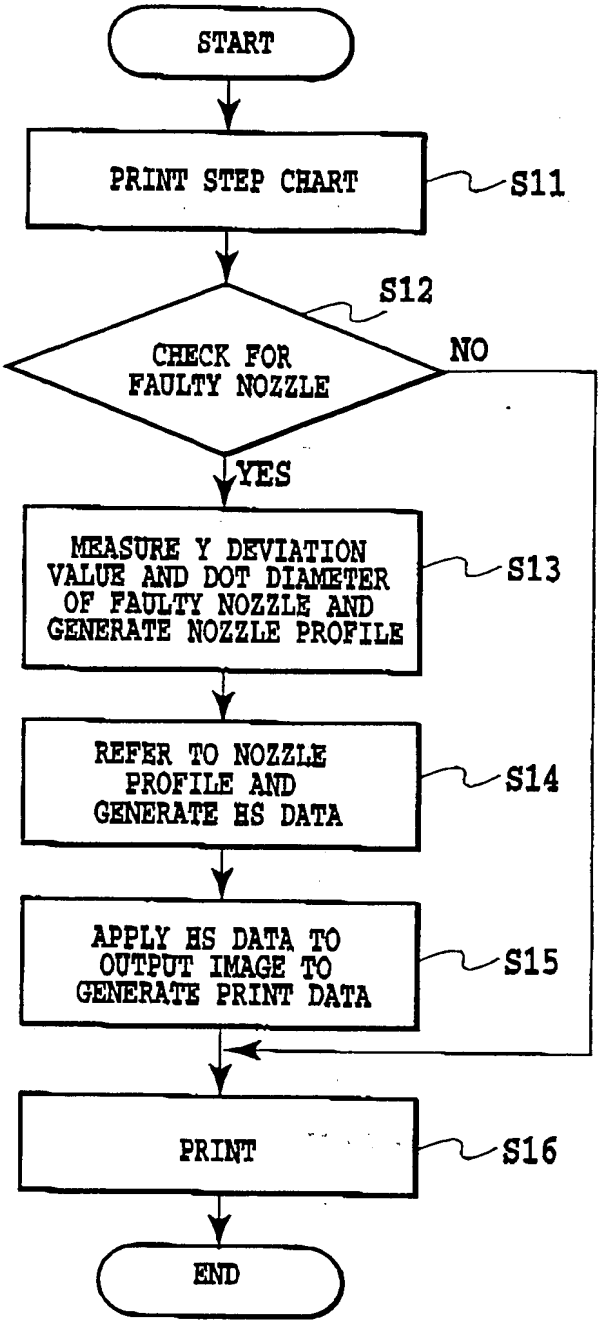

START
PRINT STEP CHART
S11
S12
CHECK FOR FAULTY NOZZLE
NO
YES
MEASURE Y DEVIATION VALUE AND DOT DIAMETER OF FAULTY NOZZLE AND GENERATE NOZZLE PROFILE
S13
REFER TO NOZZLE PROFILE AND GENERATE HS DATA
S14
APPLY HS DATA TO OUTPUT IMAGE TO GENERATE PRINT DATA
S15
PRINT
S16
END

FIG.12

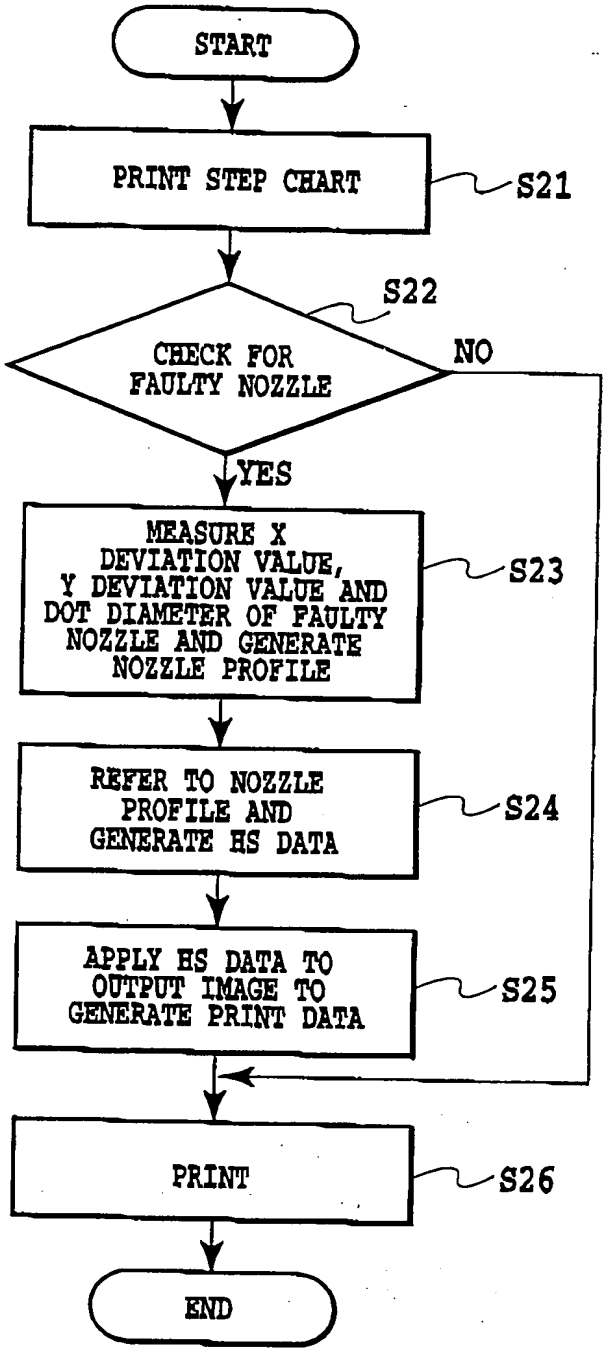

START
PRINT STEP CHART
S21
S22
CHECK FOR FAULTY NOZZLE
NO
YES
MEASURE X DEVIATION VALUE, Y DEVIATION VALUE AND DOT DIAMETER OF FAULTY NOZZLE AND GENERATE NOZZLE PROFILE
S23
REFER TO NOZZLE PROFILE AND GENERATE HS DATA
S24
APPLY HS DATA TO OUTPUT IMAGE TO GENERATE PRINT DATA
S25
PRINT
S26
END

FIG.13

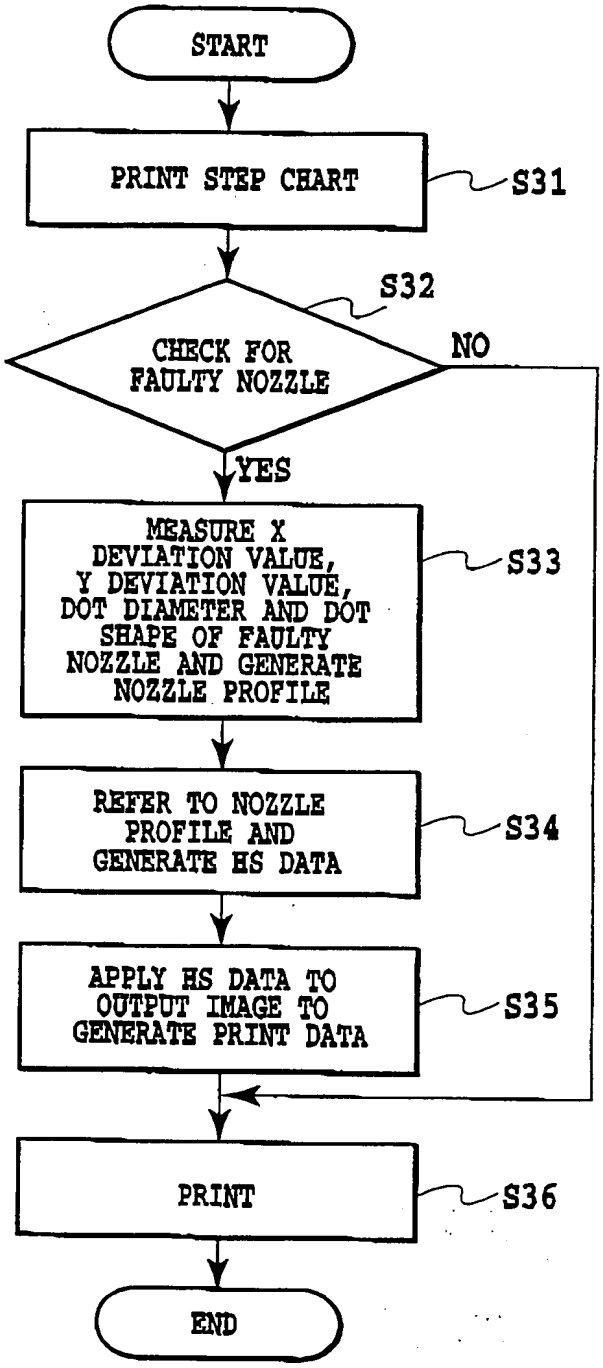

START
PRINT STEP CHART
S31
S32
CHECK FOR FAULTY NOZZLE
NO
YES
MEASURE X DEVIATION VALUE, Y DEVIATION VALUE, DOT DIAMETER AND DOT SHAPE OF FAULTY NOZZLE AND GENERATE NOZZLE PROFILE
S33
REFER TO NOZZLE PROFILE AND GENERATE HS DATA
S34
APPLY HS DATA TO OUTPUT IMAGE TO GENERATE PRINT DATA
S35
PRINT
S36
END

FIG.14

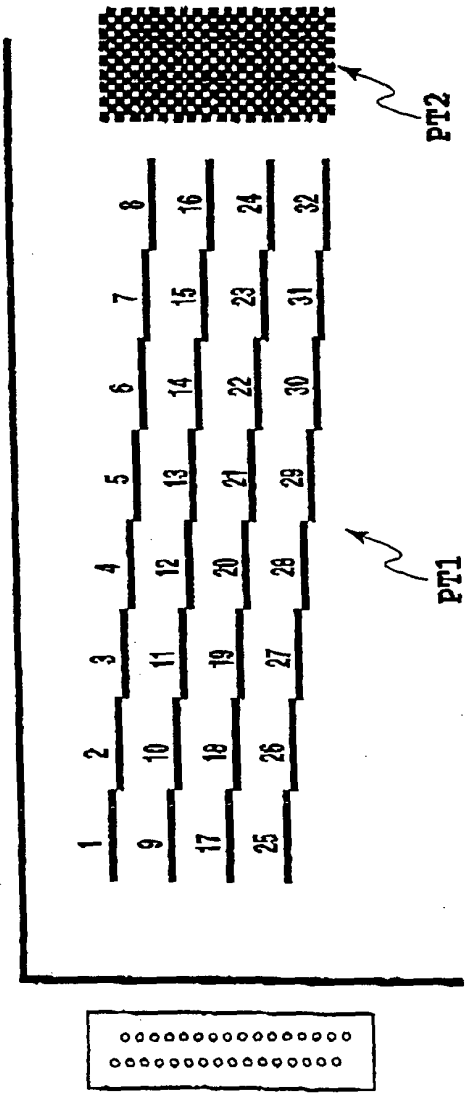


FIG.15A

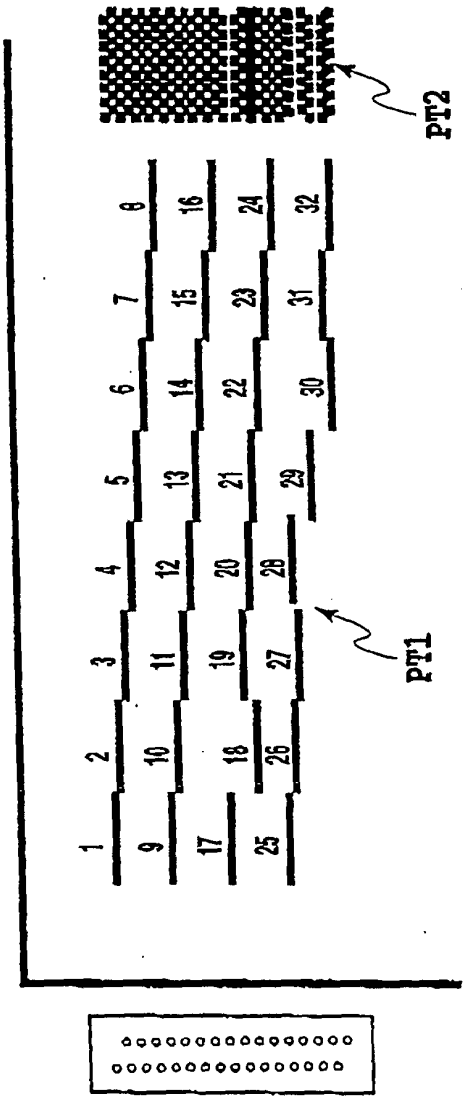


FIG.15B

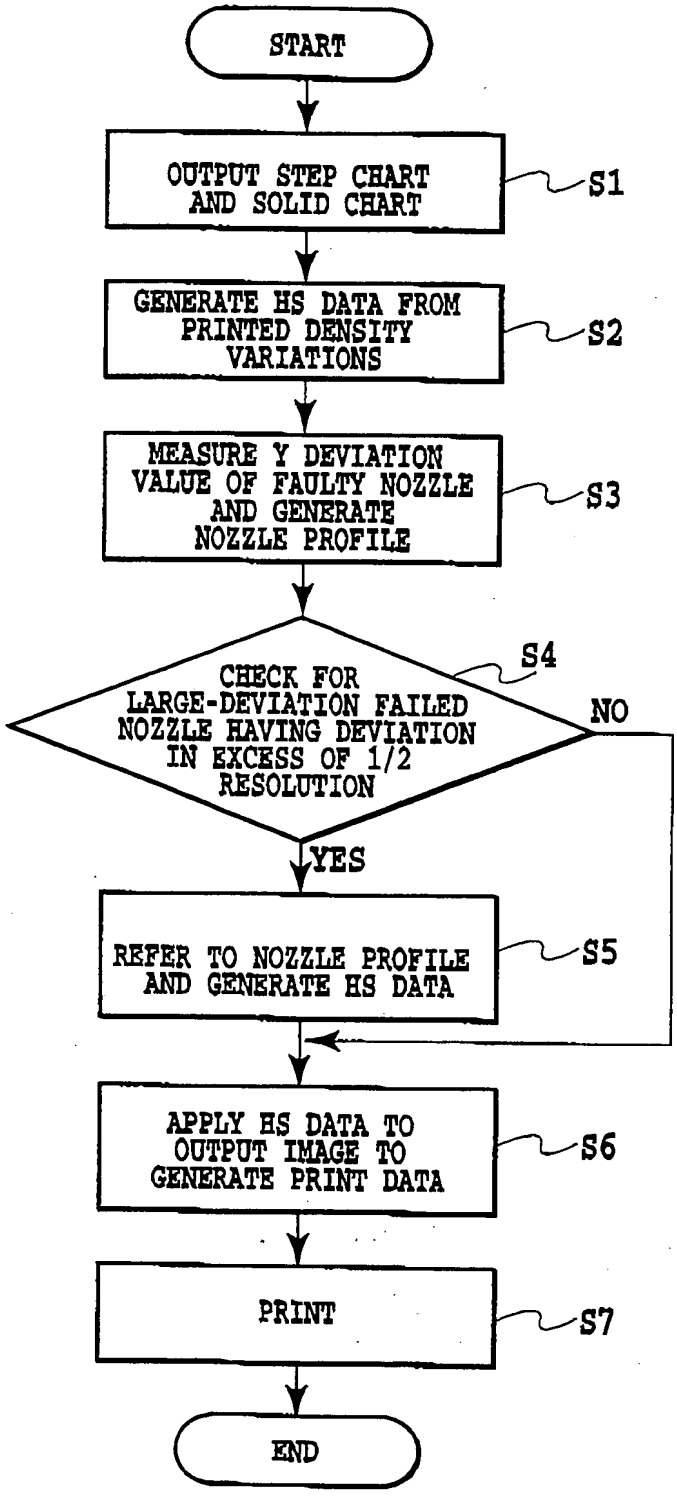

START
OUTPUT STEP CHART AND SOLID CHART
S1
GENERATE HS DATA FROM PRINTED DENSITY VARIATIONS
S2
MEASURE Y DEVIATION VALUE OF FAULTY NOZZLE AND GENERATE NOZZLE PROFILE
S3
CHECK FOR LARGE-DEVIATION FAILED NOZZLE HAVING DEVIATION IN EXCESS OF 1/2 RESOLUTION
S4
NO
YES
REFER TO NOZZLE PROFILE AND GENERATE HS DATA
S5
APPLY HS DATA TO OUTPUT IMAGE TO GENERATE PRINT DATA
S6
PRINT
S7
END

FIG.16